

REMARKS

Claims 1-21 are now pending in the application. Claims 19-21 are added. No new matter is presented. Pending claims 1-18 stand rejected. The above amendments and the following remarks are considered by Applicants to overcome each rejection raised by the Examiner and to place the application in condition for allowance. An early Notice of Allowance is therefore requested.

Claims 7 and 10 are rejected on the ground of statutory obviousness-type double patenting as being unpatentable over claims 1 and 9 of U.S. Patent No. 6,752,778. Applicants submit a terminal disclaimer for claims 7 and 10. Therefore, Applicants request the withdrawal of the double patenting rejection of claims 7 and 10.

Claims 1-6, 8, 9, 12, and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilk (U.S. Patent No. 5,279,599). The Examiner takes the position that Wilk teaches or suggests all the features recited in claims 1-6, 8, 9, 12, and 18. Applicants respectfully disagree.

Wilk is directed to a device connectable to a suction source for drawing off particulate matter from the air about a burning site having a flexible hose provided along an end segment with a plurality of spaced apertures. The apertures are covered by punch-outs in the wall of the tube. A fastener serves to connect the hose at an end opposite the apertured end segment to the suction source. A coupling element is provided for securing a free tip of the hose, at the free end of the apertured end segment, to the hose along a middle portion thereof to thereby form a loop including at least a portion of the apertured end segment. A selectable number of the punch-outs may be removed from the hose prior to a burning operation.

The present invention provides an arrangement and a process for the suction removal of waste products such as smoke and tissue particles in the ablation of biological tissue by

means of a laser beam, especially for use in connection with ophthalmic surgery of shaping a corneal of an eye by laser radiation.

In contrast to the claimed invention, Wilk discloses a device for drawing of gases and particulate matter from a burning site. This application is used in the dermatological field. The plume evacuator of this application is flexible and it is adaptable to different surgical conditions, and the flexible evacuator assembly lies on the tissue in close contact with the tissue. However, this is problematic since the air flow occurring relative to the surface of the treated biological substance disadvantageously leads to a drying out of the substance. As a result, the drying out of the substance causes excessive ablation due unpredictability.

It is respectfully submitted that Wilk's fails to teach or suggest all the features recited in the pending claims. Specifically, Wilk's fails to teach or suggest the tubular channels as recited in the claims 1 and 18. The element 106 in Wilk is a connector section (See col. 6 line 61). This connector section does not have an orifice through which laser radiation is directed to the tissue and through which waste products are sucked as described in our client's application. Furthermore, element 118 in Wilk is not an orifice. In other words, Wilk does not teach or suggest a tubular channel having an inner wall which has at least one outlet opening for a gas in a vicinity of the orifice and wherein flow of gas is directed to the center of the tubular channel.

Therefore, it is submitted that Wilk fails to teach or suggest the tubular channels of the claimed invention. In addition, Wilk is directed to an entirely different procedure, i.e., outside the body where the laser can be separate and is therefore not sent through the device as claimed in present invention. Therefore, one skilled in the art would not logically seek to review this reference because it is nonanalogous art which "teaches away" from the present invention as claimed.

Additionally, in Wilk, the laser is not part of the invention, but it is a part of a separate

device. Therefore, it would not be obvious or logical for one skilled in the art to look to a waste air suction patent, when seeking guidance on a laser controller. Thus, in view of these distinctions, it is respectfully submitted that Wilk fails to teach or suggest all the features recited in claims 1 and 18. Therefore, Applicants request the withdrawal of the rejection of claims 1 and 18 under 35 U.S.C. 102(b).

Claims 2-6, 8, 9, and 12 are dependent upon claim 1. Therefore, it is submitted that for at least the reasons mentioned above, claims 2-6, 8, 9 and 12 recite subject matter that is neither taught nor suggested by the applied reference. Accordingly, Applicants request the withdrawal of the rejection of claims 2-6, 8, 9 and 12 under 35 U.S.C. 102(b).

Claims 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Cosmescu (U.S. Patent No. 5,199,944). The Examiner takes the position that Cosmescu teaches or suggests all the features recited in claims 13-17. Applicants respectfully disagree.

Cosmescu discloses a smoke evacuator system for use during laser surgery. The system uses either a built-in vacuum pump or an external vacuum source. Electronics are provided which detect the activation of the cutting laser beam of the laser laparoscope and activate the smoke evacuator system.

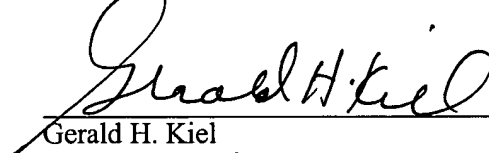
In Cosmescu, the tubular channel has an inner wall having outlet openings 92 for a gas, but the "exhaust holes" 92 are inlet openings for the exhaust path not an outlet for directing clean gas for example. See the specification at Col. 4, lines 52-61: "When the smoke evacuator system is activated, vacuum line 90 presents a vacuum stopcock 88, which draws smoke and CO₂ gas through exhaust hole 92 from body cavity 85 of the patient" (see col. 4 line 52-55). Thus, Cosmescu fails to teach or suggest the tubular channel having an inner wall which has at least one outlet opening for a gas in a vicinity of the orifice and wherein flow of gas is directed to the center of the tubular channel.

In view of the above distinctions, Applicants submit that Cosmescu fails to teach or suggest the features recited in claim 13. Therefore, Applicants request the withdrawal of the rejection of claim 13 under 35 U.S.C. 102(b).

Claims 14-17 are dependent upon claim 13. In view of the above remarks, Applicants submit that claims 14-17 recited patentable subject matter for at least the reasons mentioned above. Therefore, Applicants request the withdrawal of the rejection of claims 14-17 under 35 U.S.C. 102(b).

For the reasons presented above, claims 1-21 all the claims pending in the application, are believed by Applicants to define patentable subject matter and should be passed to issue at the earliest possible time. A Notice of Allowance is requested.

Respectfully submitted,



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